

November 12, 2014



U.S. Department  
of Transportation

East Building, PHH – 30  
1200 New Jersey Avenue, Southeast  
Washington, D.C. 20590

**Pipeline and Hazardous  
Materials Safety Administration**

DOT-SP 16022

EXPIRATION DATE: August 31, 2016
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(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Zhejiang Juhua Equipment Manufacturing Co., Ltd.  
Quzhou City, Zhejiang Province, China  
(US Agent: Techven (USA) LLC, Irvine, CA)
2. PURPOSE AND LIMITATIONS:
  - a. This special permit authorizes the manufacture, mark, sale and use of non-DOT specification portable tanks mounted within an ISO frame that have been designed, constructed and stamped in accordance with Section VIII, Division 2 of the ASME Code. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
  - b. The safety analyses performed in development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analysis did not consider the hazards and risks associated with consumer use, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 178.274(b), 178.276(b)(1) and 178.276(a)(2) in that alternative packaging is authorized.

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5. BASIS: This special permit is based on the application of Zhejiang Juhua Equipment Manufacturing Co., Ltd. dated November 1, 2013, and additional information dated July 21 and August 13, 2014 submitted in accordance with § 107.105 and the public proceeding thereon.
6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Division 2.1 and 2.2 materials authorized for transportation in UN portable tanks (see PORTABLE TANK CODE T50).	2.1 or 2.2	As appropriate	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a UN portable tank conforming to the requirements of § 172.102(c)(7) PORTABLE TANK CODE T50 which are designed, constructed, certified and stamped "U2" in accordance with Section VIII, Division 2 of the ASME Code, including all applicable ASME Code Cases with a design margin of 3.0:1. Each portable tank must be constructed in accordance with the manufacturer's drawings JEHM-U21201-00, Rev. 1 or JEHM-U21301-00, specifications and calculations on file with the Office of Hazardous Materials Special Permits and Approvals (OHMSPA) and in accordance with the following requirements:

(1) Code: Tanks must conform to all the requirements for UN portable tanks in §§ 178.274 and 178.276 and with PORTABLE TANK CODE T50 in all respects except for the design code and design reference temperature. This special permit authorizes the use of Section VIII, Div. 2 of the ASME Code as the design code.

(2) Design pressure: The design pressure must be not less than the vapor pressure of the lading, including any gas padding, at a design reference temperature of 46.1°C (115°F).

## (3) Design Summary:

Drawing number	Drawing no.JHEM-U21201-00 Rev 1	drawing no. JHEM-U21301-00 Rev 0
Design Code	ASME Section VIII, Division 2	ASME Section VIII, Division 2
ASME Design Pressure (MAWP)	3.14MPa at 46.1°C	2.5MPa at 46.1°C
External design pressure	full vacuum	full vacuum
Test pressure	1.3 x design pressure at 55°C	1.3 x design pressure at 55°C
Shell and head Material	P460NL1, per Code Case2594 and 2624	P460NL1 per Code Case2594 and 2624
Design temperature range	- 40 to +55 °C	- 40 to +55°C
Water capacity	24,300 liters nominal	24,300 liters nominal
Insulation	Sun-shielded	Sun-shielded
Baffles	3	3
Shell thickness	per ASME Code	per ASME Code
Head thickness	per ASME Code	per ASME Code
Corrosion allowance	0	0
Pressure relief	Fort Vale CE015/25005A 3"flanged pressure relief valve set 100% design pressure at 55°C preceded by an (optional) rupture disc	Fort Vale CE015/25005A 3"flanged pressure relief valve set 100% design pressure at 55°C preceded by an (optional) rupture disc
Inspection opening	500 mm with bolted blind cover	500 mm with bolted blind cover
Service equipment	Liquid line: Fort Vale 802B/0010L;	Liquid line: Fort Vale 802B/0010L;
	Vapor line: Fort Vale 802B/0010L; Pressure gauge: 0-6MPa,pressure gauge with isolation valve; Temperature gauge:- 40 to 80°C,gauge with no connection to pressure	Vapor line: Fort Vale 802B/0010L Pressure gauge:0– 6 MPa, pressure gauge with isolation valve; Temperature gauge: - 40 to 80°C,gauge with no connection to pressure
G-Loadings	Vertical down: 2; Vertical up: 2 Longitudinal: 2; Transverse : 2	Vertical down: 2; Vertical up: 2 Longitudinal : 2; Transverse: 2
NDE	100% RT of all butt welds, MT or PT all fillet welds	100% RT of all butt welds, MT or PT all fillet welds
ISO frame	size/type=22T8, tested + approved to the CSC for an MGW = 34000 kg	size/type=22T8, tested + approved to the CSC for an MGW = 34000 kg

b. TESTING -

(1) Hydrostatic test certificates for each tank must be maintained by the owner and made available upon request to any representative of DOT.

(2) Each tank must be inspected, tested, and repaired as specified in § 180.605 for UN portable tanks, except the hydrostatic test pressure shall be no less than 1.3 MAWP.

c. OPERATIONAL CONTROLS -

(1) The pressure produced by the lading and any gas padding at 46.1°C (115°F) may not exceed the design pressure of the portable tank.

(2) Each portable tank must be filled by weight.

(3) Each tank must be visually inspected prior to shipment to ensure that it has not been damaged during loading. Any unsafe condition must be corrected prior to the tank's use.

(4) Prior to use in "Offshore Service" under the terms of this special permit, additional information justifying such use must be submitted to and acknowledged in writing by the Associate Administrator for Hazardous Materials Safety.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a packaging covered by this special permit, may reoffer it for transportation provided no modification or change is made to the packaging and it is offered for transportation in conformance with this special permit and the HMR.

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- c. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
- d. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Special Permits and Approvals for a specific manufacturing facility.
- e. A current copy of this special permit must be maintained at each facility where the packaging is manufactured under this special permit. It must be made available to a DOT representative upon request.
- f. In addition to markings specified in § 178.274(i), each portable tank must be plainly marked on both sides near the middle, in letters and numerals at least two inches high on a contrasting background, "DOT-SP 16022".
- g. Transportation of Division 2.1 materials (flammable gases) are not authorized aboard cargo vessel unless specifically authorized in the Hazardous Materials Table (§ 172.101).
9. MODES OF TRANSPORTATION AUTHORIZED: Motor Vehicle, Cargo Vessel, and Rail Freight.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, or motor vehicle used to transport packages covered by this special permit.
11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
  - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

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- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)—"The Hazardous Materials Safety and Security Reauthorization Act of 2005" (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term "exemption" to "special permit" and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for Dr. Magdy El-Sibaie  
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at [http://hazmat.dot.gov/sp\\_app/special\\_permits/spec\\_perm\\_index.htm](http://hazmat.dot.gov/sp_app/special_permits/spec_perm_index.htm) Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PTO:Staniszewski